

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:
William D. Morgan *et al.*

Serial No.: 08/828,330

Filed: March 28, 1997

For: INSULATED REMOVABLE POND
COVER

Group Art Unit: 1723

Examiner: Robert J. Canfield

Atty. Dkt. No.: IAEC:007USR1/MTG

37 C.F.R. § 1.132 DECLARATION OF DENNIS H. GERBER

I, Dennis H. Gerber, declare:

1. I am an independent consultant involved in providing design guidance to many clients for floating reservoir cover designs. I received a Bachelor of Science in Marine Engineering from the California Maritime Academy in 1957. I received an MBA from Pepperdine University in 1982.
2. I have been involved in the design and installation of floating covers continuously since 1971. I have guided/participated in the design and construction of more than 300 acres of floating covers at more than 50 reservoirs. My services are routinely and currently retained by many national and international major engineering firms to assist them with floating reservoir cover projects. I have designed many gas collecting floating covers for reservoirs. I am the inventor on five patents in the field of reservoir floating covers, one of which is for a gas collecting floating cover.
3. I have been retained by Michael Morgan's company, Industrial & Environmental Concepts, Inc. (IEC), on different occasions over the past 11 years to consult about some of

IEC's floating cover designs. IEC compensated me for the time it took me to consider the materials discussed below and assist with this declaration at the rate of \$150.00 per hour.

4. I have reviewed the copy of the patent application attached as Exhibit 1 to my declaration, which I understand was filed on October 22, 1993.

5. At the time the application was filed, people who had participated in the design and installation of either liners, floating covers, or both, for at least about six months to one year would have been able to understand the information presented in the patent application. I will refer to these people as "relevant individuals."

6. At the time the application was filed, relevant individuals would have recognized from reading the application that the disclosed panels could necessarily be de-linked from each other. The application explains on page 2 how to link panels to each other using cables and cable clamps. It also shows this in the figures. At the time the application was filed, relevant individuals would have been familiar with the use of cables and cable clamps as mechanical fasteners for temporarily connecting two items together; cables and cable clamps were well-known, and it was also well-known that they could be taken apart by simply unthreading some bolts and pulling the cable out of the cable clamp. Thus, it would have been clear to relevant individuals at the time the application was filed that the application disclosed a cover system made from removably linked panels.

7. At the time the application was filed, relevant individuals would have recognized that the linked panels described in the application necessarily had gaps between them because they are linked together with cables and cable clamps. Cables and cable clamps necessarily create non-sealed connections between the overlapping edges of the panels, especially when those connections are spaced apart from each other such as shown in Figure 2. Thus, relevant

individuals would have recognized at the time the application was filed that there would necessarily be gaps between the overlapping edges in the space between the adjacent link locations. They would have also recognized at that time that the linked panels would necessarily be non gas-tight.

8. The application discusses "settling ponds used for holding sewage and industrial wastes." Page 1. It also discusses the primary advantage of the invention is that it could be removed, such that the pond could be dredged and the cover re-used. Page 1. It also specifies that another advantage is that the cover insulates the pond, speeding biodegradation of organic material. Page 1. Gas gets produced when biological material, such as sewage or industrial waste, degrades. At the time the application was filed, relevant individuals would have known this, and would have recognized from these page 1 statements and the application as a whole that the application disclosed placing a cover system over wastewater that produced gas. Relevant individuals would also have recognized at the time the application was filed that such gas would necessarily escape from underneath the cover through at least some of the gaps I discuss in paragraph 7 above. While some of the gas could escape through the portions of the openings through which the cables were placed, most of it would go through the gaps I discuss in paragraph 7, and relevant individuals would have recognized this at the time the application was filed.

9. All statements made of my own knowledge are true and all statements made on information are believed to be true, and statements in this document were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment or both under § 1001 of Title 18 of the United States Code.

Aug. 1, 2007
Date

Dennis H. Gerber

Dennis H. Gerber

EXHIBIT 1

343.00-00/139835

2 for 1

INSULATED REMOVEABLE POND COVER

William D. Morgan, 6009 Chapel Dr., Minneapolis, Minnesota 55439.

SUMMARY AND BACKGROUND OF THE INVENTION:

Man-made, usually rectangular, settling ponds are used for holding sewage and industrial wastes. These ponds are usually covered by a large one-piece geomembrane which has gas and water collection systems and is usually not insulated. These pond covers are laid on-site and secured by an anchoring trench. Because of their size, they are difficult to remove.

The present invention is an insulated removeable pond cover which is made in sections which are held together by means of a series of grommets and cables. The cables are secured to a series of concrete deadheads.

The primary advantage of the invention is that it is removeable, thus allowing the pond to be dredged and re-used. Another advantage is that the insulation results in heat being retained in the pond, thus speeding biodegradation of organic material.

DESCRIPTION OF THE DRAWINGS:

Fig. 1 is a side detail view of two of the panels.

Fig. 2 is a top perspective view showing two full panels and parts of four other panels, starting from one edge of the pond cover on the left.

DESCRIPTION OF THE INVENTION:

The pond cover comprises a plurality of generally rectangular casings or panel units 1 linked together. The number and size of the casings 1 will vary depending upon the size of the pond to be covered, and the casings 1 are arranged in as many rows as are needed. Generally each casing 1 will be about seven and one-half feet wide and approximately forty feet long. Each casing 1 is filled with a layer of insulation 3 and then sealed at either end and along either side by a fusion weld 4. The casings 1 are made of geomembrane (a high density polyethylene material).

Adjacent casings 1 are linked together in overlapping spaced relationship

by means of a grommet and cable system. Each casing 1 is provided with a plurality of grommets 5 at either end and along either side, positioned outside of the welded area 4 so as not to break the seal. The total number of grommets 5 per casing 1 can vary. After the grommets 5 of adjacent casings 1 are lined up in vertical spaced relationship to each other, a cable 7 is passed through the openings of the grommets 5, is formed into a loop above the panels 1 and is secured in position by a cable clamp 11 attached to the cable 7 beneath the casings 1. A heavy tie-down cable 12 is then passed through all the loops of the cables 7 in the row and is secured at either end to an anchor post such as a concrete deadhead, in a conventional manner such as tying the cable 12 to a rod with a nut at either end and securing the cable 12 with a cable clamp. If wind getting underneath the cover is a problem, additional cables can be passed through the cable loops 7 perpendicular to cable 12 at either end and in the middle of the series of casings 1.

Once the pond cover has been secured in position, it will float upon the liquid in the pond, and it can be removed when the pond needs to be dredged.

I claim:

1. For a pond cover comprising a plurality of panel units linked together, means for insulating said pond cover and linking said panel units together and securing said pond cover in position on the pond, said means comprising:

a panel unit structure wherein said panel unit is filled internally with a layer of insulation and is sealed at either end and along either side by welding;

and securing means whereby each of said panel units is provided with grommets disposed at said sealed ends thereof, and each of said panel units is linked in vertical spaced relationship to adjacent panel units by means of a cable which is disposed through said grommet and formed into a loop projecting above said panel units, and by means of a second, heavy cable which is disposed through the entire row of said loops and is anchored at either end to an anchoring

means.

ABSTRACT: ^{OF THE} ~~DISCLOSURE~~

08/139,835

An insulated removeable pond cover for settling ponds. The pond cover comprises a plurality of sealed panel units containing insulation. The panel units are linked together by means of a system of cables which pass through grommets in the panel units.

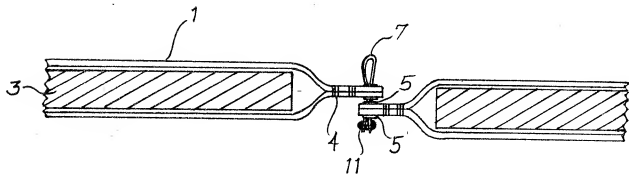


FIG. 1.

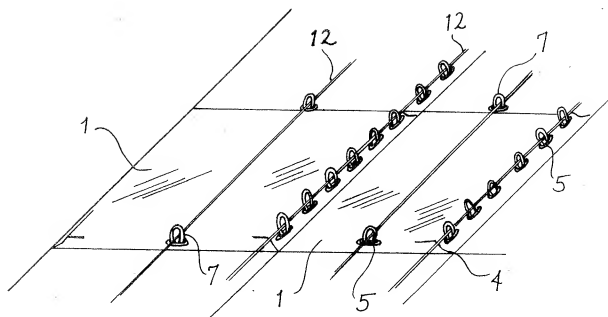


FIG. 2.